

To: Fagen, Elizabeth[Fagen.Elizabeth@epa.gov]
From: Schmittiel, Paula
Sent: Wed 8/12/2015 11:33:12 PM
Subject: FW: update

Paula Schmittiel

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From: Paschke, Suzanne [mailto:spaschke@usgs.gov]
Sent: Wednesday, August 12, 2015 5:14 PM
To: Schmittiel, Paula; Schmidt, Andrew
Cc: Timothy Raines; Robert Kimbrough
Subject: update

Hi Andrew and Paula,

Paula suggested that I send you both an update on USGS activities in Colorado and New Mexico. We are hoping that at a minimum, one of the technical services interagency agreements (IA) can be used to facilitate onsite support for Rob Runkel and technicians. Please let us know how you would like us to proceed and what is appropriate to charge to which IA. There is an IA with Andrew and another for Rob to work on Peru Creek through Kerry Guy. Activities from the NMWSC also are shown below. I spoke with my USGS counterpart in NM today, and he said to let them know if you would like them to sample any specific locations.

Thank you,

Suzanne

Summary of activities from Colorado Water Science Center (CWSC)

Estimate of release volume prepared by Bob Kimbrough, Associate Director for Hydrologic Data, on the basis of Cement Creek hydrograph for August 6-7. Streamgages in Silverton area were serviced and discharge accuracy checked by Kevin Murphy from the Durango field office.

Rob Runkel and Thomas Chapin are onsite in Silverton deploying mini-sipper sampling devices and continuous water-quality sondes. USGS hydrologic technicians from Grand Junction traveled to Silverton to assist with surface-water sampling at existing gages and with flow measurements at the Gold King Mine. Sondes will need weekly servicing because of low-pH water. Rob is in Silverton all week assisting Steve Way. Next week, Rob will be working on MINTEQ models of mixing and treatment processes at the Gold King Mine.

Katie Walton-Day worked with Utah and New Mexico Water Science Centers to develop an a standard analyte schedule for total and dissolved metals at the National Water-Quality Lab (NWQL). Katie has been pulling historical data from the USGS Silverton sites.

Suzanne Paschke spoke with Sarah Bahrman regarding possible loading calculations prior to EPA data release. USGS certainly can pursue this activity if EPA is interested.

Summary of activities from New Mexico Water Science Center (NMWSC)

A team of five from the New Mexico Water Science Center arrived at Farmington late on Friday, August 7. The goal was to collect water quality samples in the Animas and San Juan Rivers before and during passage of the spill plume. The team was on-site from Friday night until Sunday afternoon. Sample collection sites coincided with the location of USGS streamgages: Animas River at Farmington (09364500), before and during the plume; San Juan River at Farmington (09365000), during the plume; San Juan River at Shiprock (0936800), before and during the plume; San Juan River at Four Corners (09371010), both samples before the plume. The samples collected on the Animas and the San Juan at Farmington were composite samples; the samples at Shiprock and Four Corners were grab samples. A total of seven samples were collected between Friday night and Sunday afternoon. Samples were filtered and will be tested for major ions, trace metals, and mercury at the USGS National Water Quality Lab. Field parameters (pH, specific conductivity, dissolved oxygen, and water temperature) were collected at the time of sampling. A continuous water-quality sonde was deployed on the Animas River at Farmington on Saturday morning and has continued to record field parameters (pH, SC, DO, and temperature) since that time.

Current efforts, as of Tuesday, August 11, will focus on the Animas at Farmington and San Juan at Farmington sites. A set of two ISCO samplers will be deployed at each site, one to sample daily, and a second, triggered by changes in turbidity, as an event sampler. A discharge measurement will be taken at each location, so that loads can be calculated from the suspended sediment samples.

On August 12, a second, five-parameter (pH, SC, DO, temperature, and turbidity) sonde will be deployed at San Juan at Farmington. Data from the Animas at Farmington sonde, which has been recording since Saturday morning, will be downloaded, and the sonde replaced with a five-parameter unit. A composite water-quality sample will be collected at each site, and bed sediment samples will be collected. An additional set of water quality and sediment samples may be collected at Aztec in conjunction with National Park Service monitoring there.

Additional sampling details from NMWSC:

Suzanne,

Below is more detail on the sampling that was conducted over the weekend. All samples are filtered, except for one. I don't know which one is raw though. We are using Schedule 2710 for trace elements, Schedule 2069 for majors, and Lab Code 2707 for mercury. A quick comparison shows we have everything from Schedule 1673 covered with a few additional things.

Matt

Animas River at Farmington (09364500)

08AUG15 00:00 (Clean)

08AUG15 13:30 (Dirty)

San Juan River at Farmington (09365000)

08AUG15 17:30 (Dirty)

San Juan River at Shiprock (0936800)

08AUG15 12:40 (Clean)

09AUG15 10:10 (Dirty)

San Juan River at Four Corners (09371010)

08AUG15 16:00 (Clean)

09AUG15 10:30 (Clean)

Clean = Before plume arrival

Dirty = After plume arrival

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